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Conference Abstract

freshwaterecology.info – An Online Database for European Freshwater Organisms, their Biological Traits and Ecological Preferences

Astrid Schmidt-Kloiber[‡], Daniel Hering[§]

‡ BOKU, University of Natural Resources and Life Sciences, Vienna, Austria
§ University of Duisburg-Essen, Essen, Germany

Corresponding author: Astrid Schmidt-Kloiber (astrid.schmidt-kloiber@boku.ac.at)

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Abstract

Species' biological traits and ecological preferences are important components to better understand distribution patterns, to help assessing and evaluating the status of freshwater ecosystems and to support biodiversity conservation. In Europe, the Water Framework Directive has been the main driver for the development of ecological assessment systems in recent years, which often use biological traits and ecological preferences of species as source for bioindication. Comprehensive databases compiling such species traits have a longer tradition in the terrestrial realm, but for freshwater organisms, such a database was missing until the establishment of freshwaterecology.info (Schmidt-Kloiber and Hering 2015).

The freshwaterecology.info online tool integrates various data sources into a comprehensive database of large-scale distribution patterns, biological traits and ecological preferences of freshwater species, including phytoplankton, diatoms, macrophytes, macro-invertebrates and fishes. The database hosts more than 21,000 European freshwater species/species-groups and information about their specific ecology, and it has more than 1,700 registered users. Based on the availability of funding, the database is constantly

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being expanded and amended, through experts' contributions, evaluation of recent publications or data analyses.

Here we present the database development, its main components as well as some usage examples.

Keywords

fish, macro-invertebrates, macrophytes, diatoms, phytoplankton, indicators

Presenting author

Astrid Schmidt-Kloiber

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